

**REMARKS**

Claims 1-17 are pending in the application. In the last Office Action, the Examiner rejected claims 1, 3-5, 7, 9 and 13-17 under 35 U.S.C. 102(b) as being anticipated by Masaru et al. (JP 08-248,358 A), rejected claims 10-12 under 35 U.S.C. 103(a) as being unpatentable over Masaru et al., and objected to claims 2, 6 and 8 as being dependent upon a rejected base claim.

By this amendment, Applicants correct minor informalities in claims 6 and 9. Applicants submit that the scope of claims 6 and 9 are not affected by such amendment.

Applicants gratefully acknowledge the Examiner's indication that claims 2, 6 and 8 would be allowable if rewritten in independent form, and Applicants have rewritten each of claims 2 , 6 and 8 to include the subject matter of the base claim and any intervening claims. However, for at least the reasons set forth in the following arguments, Applicants also believe that claims 1, 3-5, 7 and 9-17 are allowable in their present form and respectfully request that the rejections be withdrawn and the claims allowed.

Initially, Applicants note that although the Examiner alleges that each of the elements of the rejected claims are taught or suggested by Masaru et al., the rejections do not explicitly indicate precisely which elements of Masaru et al. are alleged to correspond to the particular recitations of the claims. Accordingly, in the arguments that follow, Applicants necessarily make certain assumptions regarding the Examiner's interpretation of Masaru et al., which assumptions should be apparent from the arguments presented.

Each section of the Office Action is addressed under parallel headings below.

**Claim Rejections – 35 USC § 102**

Claims 1, 3-5, 7, 9 and 13-17 stand rejected under 35 U.S.C. 102(b) as being anticipated by Masaru et al. Applicants respectfully traverse these rejections because Masaru et al. does not teach each and every recitation of these claims.

As to claim 1, although Masaru et al. discloses a polarizing beam splitter 1, this element is arranged at the input end of the optical transmission lines 3-1 and 3-2. See Masaru et al., English abstract and Fig. 1. Accordingly, Masaru et al. fails to disclose “at least one polarizer arranged either in the first and second interferometric arms, or in the output path, to define an output polarization state for the light signal,” as recited in claim 1. Further, although Masaru et al. discloses a polarization plate rotation device 4 which acts on the difference in polarization between optical transmission lines 3-1 and 3-2, the polarizing beam splitter 1 is arranged on the input side of this element. Id. Therefore, the polarization plate rotating device 4 is not arranged “so that the first polarization state is transmitted by the at least one polarizer and the second polarization state is absorbed by the at least one polarizer, thereby to output the light signal in the output polarization state defined by the at least one polarizer,” as recited in claim 1. Accordingly, for at least these reasons, Masaru et al. fails to teach all of the recitations of claim 1, and Applicants respectfully request that the rejection of this claim under 35 U.S.C. § 102(b) be withdrawn and the claim allowed.

In claim 14, the distinction between the claimed invention and Masaru et al. is also apparent. Because the polarization plate rotating device 4 is arranged after the polarizing beam splitter 1, Masaru et al. does not teach “applying a retardation to the light signal in at least one of the arms so that subsequent to the retardation the light

signal has orthogonal polarization states in the first and second arms ...; and applying a polarization with a polarizer so that one of the orthogonal polarization states is absorbed while the other is transmitted," as recited in claim 14. Accordingly, for at least these reasons, Masaru et al. fails to teach all of the recitations of claim 14, and Applicants request that the rejection of this claim under 35 U.S.C. § 102(b) be withdrawn and the claim allowed.

Further, claim 14 recites, *inter alia*, the first and second arms "having an optical path difference therebetween greater than the coherence length of the light signal." This recitation is simply not shown by Masaru et al. Accordingly, for at least these additional reasons, the rejection of claim 14 under 35 U.S.C. 102(b) is improper and Applicants respectfully request that the rejection be withdrawn and the claim allowed.

Claims 3-5, 7, 9, 13 and 15-17 ultimately depend from one of claims 1 and 14. As explained, claims 1 and 14 are distinguished from Masaru et al. Accordingly, claims 3-5, 7, 9, 13 and 15-17 are also distinguished from Masaru et al. for at least the same reasons set forth for claims 1 and 14. Accordingly, for at least these reasons, Applicants request that the rejection of claims 3-5, 7, 9, 13 and 15-17 under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

#### **Claim Rejections – 35 USC § 103**

Claims 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masaru et al.

The Examiner first alleges that Masaru et al. teaches all of the elements of claims 1 and 9 (from which claims 10-12 depend). However, as indicated above, claim 1 is

distinguished from Masaru et al. Accordingly, claims 10-12 are also distinguished from Masaru et al. For instance, Masaru et al. fails to disclose or suggest “at least one polarizer arranged either in the first and second interferometric arms or in the output path, to define an output polarization state for the light signal,” as included in independent claim 1. Therefore, Applicants request that the rejection of claims 10-12 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

As an additional matter, the Examiner asserts that “[a]lthough Masaru et al. does not necessarily use the precise nomenclature expressed in claims 10-12, it would have been obvious to do so because it is notoriously well known to use each of these variations in such applications.” To the extent that the Examiner indicates that the various recitations in claims 10-12 are mere variations in nomenclature, the Examiner has misinterpreted these claims. The terms “semi-conductor optical amplifier (SOA),” “electro-optic switch” and “optical splitter” differ in scope as well as nomenclature. Accordingly, if the Examiner maintains the position that “it is notoriously well known to use each of these variations in such applications,” Applicants request that a prior art reference be provided in support of such statement, pursuant to MPEP § 2144. Accordingly, for at least these additional reasons, Applicants request that the rejection of claims 10-12 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

**Conclusion**

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

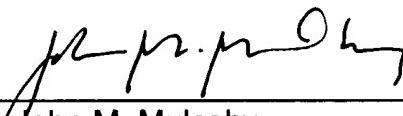
Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: May 18, 2004

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